

AKARACK

50 PRC

48 V • 150 Ah • 6.6 kWh • 56 kg*

Typical product configuration. Appearance and interfaces may vary.

*All technical data depending on HV Fuse, connector, DoD/SOC and cooling.



AVAILABLE
2021

CERTIFIED ACCORDING TO AUTOMOTIVE STANDARDS.

- › Automotive NMC li-ion technology
- › Excellent life, high level of intrinsic safety
- › Up to 25 kW continuous power with one master rack
- › Up to 50 kW peak power with one master rack
- › Automotive BMS technology for reliability and safety
- › Developed to meet stringent safety standards
- › Environmental rating up to IP67 / IP6K9K

SCALABLE. VALIDATED. DURABLE.

- › Modular and flexible energy storage system for mobile applications
- › Multiple strings can be connected in parallel for large energy storage systems
- › Compact, easy to handle base unit (manual handling)
- › Designed to fit 19" racks (3U, 600 mm depth)
- › Integrated contactor, cell monitoring and fuse
- › Liquid or air cooling within the same package envelope

FEATURES

- > High energy and power density
- > Excellent price-performance ratio as a result of the development for mass production
- > Optional liquid cooling for high performance applications
- > Long service life due to active and passive thermal management
- > Exceptionally robust, maintenance-free operation
- > EMI (Electro Magnetic Interference) compliant for many applications
- > Passive cell balancing (low loss)
- > Multi-level short circuit protection on module and rack level
- > Robust and proven control unit (BMS master)
- > Redundant safety control unit in addition to BMS master
- > Voltage and temperature monitoring
- > Multiple 48 V racks can be connected in parallel

CONFIGURATION

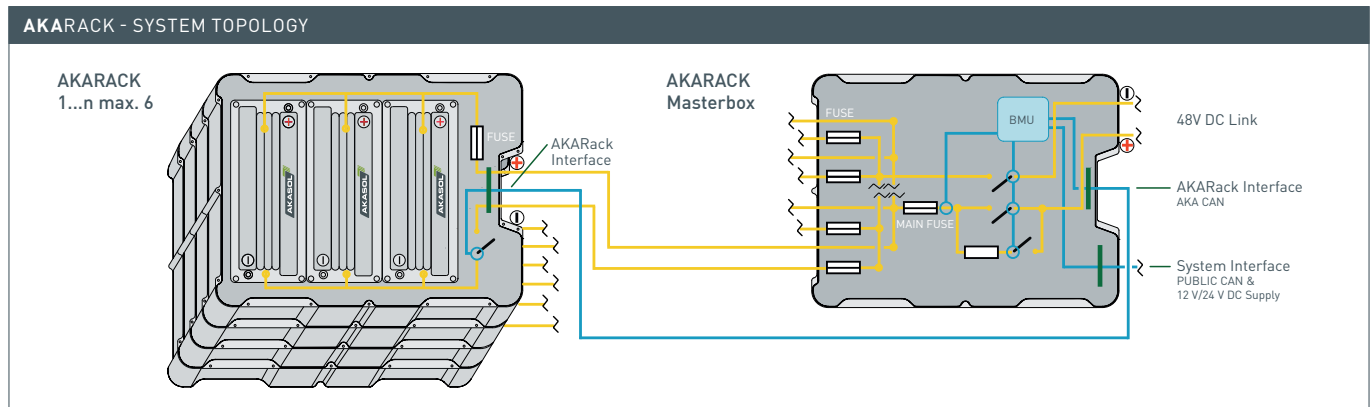
- > Freely scalable system with up to 6 AKARACKs per masterrack
- > Flexible packaging (conversion design, purpose design)
- > Easy system connectivity / ready-to-install (aligned connection points, standardized CAN bus)
- > High availability in redundant parallel string configuration (optional)
- > Suitable for multi-string systems with full monitoring on single-string and full system level

| ELECTRICAL DATA | AKARACK 48 V | nP AKARACK 48 V |
|-----------------------------------|----------------|-----------------|
| Capacity* | 150 Ah | n*150 Ah |
| Energy* | 6.6 kWh | n*6.6 kWh |
| Technology | Li-Ion NMC | Li-Ion NMC |
| Nominal voltage* | 44 V | 44 V |
| Voltage (max.) | 50.4 V | 50.4 V |
| Voltage (min.) | 36 V | 36 V |
| Discharging power max. (10 s)** | 9 kW | up to 50 kW |
| Charging power max. (10 s)** | 9 kW | up to 50 kW |
| Continuous power (RMS) > 15 min** | 5.5 kW | up to 25 kW |
| Power consumption in standby mode | 8 W | n*8 W + 25 W |
| Cycle life*** | > 3.000 cycles | > 3.000 cycles |

* 0,33C reference discharge cycle **Depending on SOC and temperature ***Depending on individual use profile, especially DoD, temperature and power

| MECHANICAL DATA | AKARACK 48 V | nP AKARACK 48 V |
|--|------------------------------------|------------------------------------|
| Coolant pressure max. | 2.5 bar | 2.5 bar |
| Coolant pressure drop per rack (water/glycol=50/50) | typ. 400 mbar @ 150 l/h nom. 25 °C | typ. 400 mbar @ 150 l/h nom. 25 °C |
| Operating temperature range | - 30 to 60 °C | - 30 to 60 °C |
| Recommended operating temperature | 15 to 35° C | 15 to 35° C |
| Protection classes**** | IP67 (IP6K9K possible) | IP67 (IP6K9K possible) |
| Weight (excl. masterbox)**** typical | 56 kg | n*56 kg |
| Dimension (L x W x H)**** in mm (nominal, excl. masterbox) | 590 x 446 x 133 | 590 x 446 x 133 |

**** Masterbox specification: similar dimensions, weight typically 30 kg



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